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WORLDWIDE REPORT

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EPIDEMICS OF CHOLERA, INTESTINAL DISEASES NOTED

Dacca THE BANGLADESH TIMES in English 23 Nov 80 p 5

[Text] Rangpur, Nov. 22: About 200 persons died of cholera, diarrhoea, gastroenteritis and other chronic stomach diseases which broke out in epidemic form in various corners of the district during last one month.

Among these about 50 are said to have been died of cholera. According to reports more than 1,000 persons are suffering from cholera and other diseases in these areas. Some samples of cholera germs of the patients have already been sent to Mahakhali Cholera Research Institute, Dacca, for examination.

District Health Department is quite unaware of the gravity of the situation. When this correspondent contacted the Civil Surgeon Rangpur he refused to give any information regarding the outbreak of cholera and other diseases.

It is alleged that due to negligence and lack of farsightedness of the District Health Department officials to take adequate precautionary measures to check the outbreak of cholera and other stomach diseases in due time in the wake of flood, these diseases broke out almost in epidemic form and is rapidly spreading over new areas. The worst cholera and other stomach diseases hit areas are Saidpur Kishorganj, Jaldhaka, Kaunia; Ulipur; Saghata; Fulchari; Sanderganj, Roumari, Lalmonirhat; and Kurigram.

Kurigram

Our Correspondent from Kurigram adds: Gastroenteritis, diarrhoea and dysentery have claimed more than 80 human lives throughout the Kurigram subdivision during the second week of October.

The intestinal diseases broken out in an epidemic form at different places of Ulipur Chilmari, Rowmarj; Rajibpur; Nageswari; Kurigram; Bhurungamari and Fulbari police stations. The worst affected police station is Ulipur where more than 60 persons died by that time, it is officially learnt. More than 900 people, including children have been attacked with these diseases.

The Deputy Director of Health and representatives of World Health Organisation visited the affected areas of Ulipur All possible preventive measures have been taken by the Health Department.

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BRAZIL

VACCINATION FOR YOUNG CHILDREN PLANNED BY END OF 1981

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 11 Dec 80 p 16

[Text] By the end of 1981, the Ministry of Health plans to vaccinate all children 5 years old and under against poliomyelitis, measles, tetanus, whooping cough, diphtheria and tuberculosis. This announcement was made yesterday by Minister Waldyr Arcoverde during a press conference held at the Planalto Palace, especially for the announcement of the results of the mass vaccination campaign against infantile paralysis in the months of June and August, which produced a drop in the incidence of the disease throughout the country.

In October, only 14 cases of polio were reported as compared to 186 in October 1975, representing a reduction in the earlier average, which varied between 95 and 385 cases per month, by a factor of 13. Since the vaccination campaign, which was carried out in 2 stages--on 14 June and 16 August--not a single case of polio has been reported in the state of Sao Paulo or the Federal District. In the states of the North, Center-West and South, one case was reported, and there were seven in the Southeast.

The press conference was inaugurated by Minister of Mass Media Said Farhat. Minister of Welfare and Social Security Jair Soares also participated, stressing the importance of the joint action of his ministry and the health ministry. He stated that the number of children vaccinated against polio--44.5 million--is unprecedented in world history. This was only made possible by the integration of the two ministries with the state health secretariats, involving more than 300,000 persons, 92 vaccination stations and 65 million doses of oral vaccine. With the success achieved in the campaign, Jair Soares said that other programs, particularly in the maternity-child care area, including family planning, will be carried out by the two ministries beginning next year, using the whole of the health structure existing in the country.

The same system of mass vaccination will be pursued in the next 3 years (on the second Saturday in June and the third Saturday in August) until the disease is brought under control--150 cases a year more or less, and from then on only the children born in that year will be immunized. The health minister hopes to vaccinate 80 percent of the children 5 years old and under, at a minimum, in the future, as this is the index necessary to break the transmission chain of the disease.

Currently, the main problem in Brazil's achieving self-sufficiency in the production of vaccines against polio remains the import of African monkeys needed for laboratory research. The Ministry of Health has already begun negotiations through the Itamaraty Palace, and hopes not only to produce enough to meet the domestic demand but to be exporting this product by 1983.

The explanations by the two ministers were illustrated with epidemiological graphs showing the incidence of polio in the period between 1975 and 1980, when the variation in the disease was more or less stable. According to the national secretary for basic health activities, Joao Baptista Rizzi, vaccination throughout these years did not interfere with the continuity of the disease, which was not seen until after the mass immunization campaign.

The secretary in charge of the campaign said that the incidence of polio, on the basis of cases reported in 1980, was reduced to levels far below the minimal limits seen in preceding years, with a clear correlation with the two mass-vaccination stages. It revealed the immediate effects of immunization programs in areas with a high incidence of polio, accompanied by the intensified epidemiological surveillance needed to guarantee effective control of the disease.

The director of the national epidemiological division at the Ministry of Health, Roberto Augusto Becher, called attention to the increase in the number of cases reported after the mass vaccination campaign, noting that for this reason the decline in the incidence of the disease is much greater than the epidemiological data recorded by the ministry shows.

Sabin Urges Continued Effort

In order to be free of poliomyelitis, the country will have to maintain the vaccination campaigns of the sort carried out this year for a minimum of 10 more years. This recommendation was made by Prof Albert Sabin in Curitiba yesterday, shortly before he was made an honorary citizen of Parana by the legislative assembly of the state in a ceremony attended by Governor Ney Braga.

Sabin had little to say to the press. He merely stressed that it is necessary to continue the mass vaccination campaigns, without giving much credit to the arguments of some health workers who say that this might discourage the use of health stations, the product of a habit acquired in some Brazilian states. Sabin said that "the people must wait for the anti-polio campaigns, which should be carried out at the same time each year. They should go to the health stations to obtain other types of vaccine."

In a speech of thanks for the honor accorded him by the deputies, Sabin said that the campaigns carried out in Parana, a state which administered two additional doses of the vaccine, since the outbreak which afflicted the country was first discovered there, has already yielded very practical results. "When I talked yesterday (Tuesday) with the state health bodies, I learned that five cases of polio had been reported this summer. On checking directly, it was possible to learn that in fact none of these were polio cases. This leads me to believe that Parana will be free of the disease, if only the campaigns are continued."

Deputy Jose Tavares, the sponsor of the proposal to confer the honor on Prof Albert Sabin, reached the conclusion on the basis of talks with Sabin that he still has some reservations about the plan for combating polio being pursued in the country. The deputy could not explain what kinds of reservations and Sabin himself did not at any time reveal them. On the contrary, in his speech to the deputies, he said that due to the kind of work done this year against the disease, the country has come to serve as an example for other tropical or sub-tropical nations with serious polio problems.

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BRAZIL

UNIDENTIFIED ILLNESS KILLS FOUR IN PARANA

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 10 Dec 80 p 14

[Text] Curitiba--A strange disease, probably a virus difficult to identify, struck a family in the small community of Campo Limpo, 70 kilometers from Curitiba, causing 4 deaths and the hospitalization of 2 other individuals, who are seemingly out of danger. The health authorities, although they feel there is no need to quarantine the area for the time being, recommend that no one enter or leave the community until the disease is identified.

Technicians from the General State Laboratory patrolled Campo Limpo all day yesterday looking for wild animals, passerine birds and insects in a search for clues. Samples of blood, urine and other fluids were also taken from the patients in isolation at the Oswaldo Cruz Hospital--a woman and a little girl of three. The samples were analyzed at the Adolfo Lutz Institute in Sao Paulo and the Evandro Chagas Institute in Belem, since the laboratories in Parana are not equipped for the purpose.

The problem was discovered on the 7th of the month when police took the body of Reginaldo Rodrigues Simeao, 18, to Curitiba for IML investigation of his death. The studies revealed lesions due to pneumonia, myocardia, and hydrocephalus, probably caused by a virus. It was then discovered that there had been three other deaths in the family preceding that of Reginaldo. On 21 November, his brother-in-law, Joao Taborda, age not known, died, having had the same clinical symptoms. On 4 and 6 December, Lucimar, 8 years old, and Isaias, 2 years old, both Joao's children, died. Another daughter, Lea Regina, 3 years old, and his sister-in-law, 33 years of age (name not released), are being treated at the Oswaldo Cruz Hospital, and by yesterday, according to Director Ary Fontoura da Silva, they were at least seemingly out of danger.

Dr Antonio Viana of the Santa Julia Hospital in Bocaiuva do Sul, about 30 kilometers from Campo Lindo, was the physician of the little girl, Lucimar. He said that as he had difficulty diagnosing her ailment, he decided to send her to the Curitiba Clinical Hospital, where, he said, the doctors found nothing and believing that the child was not seriously ill, sent her back to Bocaiuva, where she died.

While the director of the epidemiological control department of the health secretariat, Jair Pazzelo, asked that the case not be publicized in order "not to alarm the population" (for this reason he did not identify the victims), the

technicians at the General State Laboratory spoke of a "epidemiological investigation" to establish the cause of the deaths of the members of the Taborda family.

It is suspected that an arbovirus, which is uncommon in Brazil, and is generally transmitted by mosquitoes, is involved. The doctors explain that this virus needs a "reservoir," for example small forest animals, and a "vector," the mosquito, in order subsequently to attack human beings. When identified, the only treatment is symptomatic, because there are no vaccines or other more effective methods.

Until they know what type of disease they are fighting, health workers will have to wait 30 days at least until the analyses are completed, technician Carlos Viana of the General State Laboratory said. All they can do in the meantime is to try to save Joao Taborda's daughter and sister-in-law.

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BRAZIL

SCHISTOSOMIASIS REPORTED SPREADING THROUGH COUNTRY

Rio de Janeiro JORNAL DO BRASIL in Portuguese 12 Dec 80 p 6

[Text] Schistosomiasis is a disease on the rise in Brazil, affecting approximately 10 million persons, the vice president of research at the Oswaldo Cruz Foundation Institute in Manguinhos, Jose Rodrigues Coura, announced yesterday during the fourth day of the scientific campaign sponsored by the foundation, ending today.

Another disease which is assuming the dimensions of an epidemic outbreak is leishmaniasis tegmentaria diffusa, although to date no special effort has been mobilized to control it. With regard to visceral leishmaniasis, which was only seen in 1977 in Rio, application has already been made to the Superintendency for Public Health Campaigns (SUCAM) for a protocol to provide for a survey of areas where the carrier insect is found (no response as yet).

Control Difficult

Professor Coura regards the control of schistosomiasis as extremely difficult, and in urban areas it depends on basic sanitation. Treatment should be exceptional in the early stage of the disease—generally between 5 and 15 years of age—to prevent it from developing. Currently there are isolated centers of the disease in Rio, in Jacarepagua, Niteroi, Sao Goncalo, Santa Clara, the northern part of the state of Rio de Janeiro, and Sumidouro, as well as some new cases in the Rio de Janeiro Lowlands.

"The main problem is to prevent the disease from invading the Amazon region, because an isolated case has already been found in Para. With the clearing of the jungle redoubled care is necessary, because the region could become a major center. There is a tendency for schistosomiasis to spread in the country generally, and mortality runs to only 1 in every 44,000 cases. However, less serious cases affect almost a tenth of the population," the professor said.

Giovani Gazinelli, of the Prof Rene Rachou Research Center in Belo Horizonte, is pursuing studies on a vaccine against schistosomiasis, using mice, although 100-percent immunization has not been achieved. He believes that use for human beings will only come in about 10 years, and even so the vaccine will only be efficient if used in conjunction with a series of other measures, such as prophylactic medication and sanitation.

New Outbreaks

Researcher Mauro Cesar Marzochi of the Oswaldo Cruz Foundation reported that although leishmaniasis tegmentaria diffusa, a cutaneous infection which can produce serious lesions in the nose, larynx and pharynx, is assuming the dimensions of an epidemic outbreak, the only control measure adopted to date is the simple reporting of cases. From 1975 on, 200 cases were reported in Jacarepagua and Campo Grande. Researchers at the Oswaldo Cruz Institute maintain a laboratory at the satellite unit of the municipal health secretariat in Vargem Grande and check on all diagnoses.

"Popularly known as malignant sores," Marzochi explained, "leishmaniasis can disappear spontaneously after several months. But the only medicine which can cure it is pentavalent antimonial salt, discovered by Gaspar Viana in 1913, when he saved innumerable lives in an epidemic in India."

Visceral leishmaniasis, an infection of the cellular defense system characterized by extreme loss of weight, fever, anemia and enlargement of the spleen and liver, was only reported in Rio in 1977, with one case in Bangu. Since that time, 13 other cases have been reported, one of them in the same household where the first occurred, and the others in Senador Camara, in the Viegas Mountains, and Realengo, in the Barata Mountains.

If not treated (with the same antimonial salt used for leishmaniasis tegmentaria diffusa), the disease may be fatal to man, while for dogs, there is no cure. Control of endemic outbreaks involves treatment of the patient, spraying with DDT and elimination of sick dogs. Currently the researchers at the institute are awaiting the protocol on evaluation of areas where the carrier insect is found, which has not yet been issued although it was requested 3 months ago.

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BRAZIL

INCIDENCE OF TUBERCULOSIS IN PERNAMBUCO REMAINS STABLE

Rio de Janeiro JORNAL DO BRASIL in Portuguese 12 Dec 80 p 9

[Text] Recife--In all, 2,587 cases of all forms of tuberculosis were reported in Pernambuco this year by the Pneumological Division of the state health secretariat, according to its head, Roberto Campelo, who said that "the incidence of the disease has remained stable in the region since 1978. Through the use of BCG vaccine, we are seeking to reduce the incidence of this disease still further, in particular that of tubercular meningitis. Thus the goal of the national pneumological division is to immunize infants as soon as possible at the health stations and maternity homes," he said.

Cough

"Any individual who coughs and spits for more than 2 weeks should go to a health station for a mucus test (bacteriological) which along with a histopathological test, makes an exact diagnosis of tuberculosis possible. If the disease is found, the patient can remain with his family and continue with his work, during treatment."

Agreement

Brasilia--Minister of Health Waldir Arcoverde has announced that by February all of the states will be participants in the agreement on tuberculosis control between the Ministries of Health and Welfare and Social Security and the state health secretariat.

Outpatient and hospital treatment will be the responsibility of the state secretariats with the support of the two ministries. The advantage of the agreement is that the secretariats can provide medical aid to patients in their native municipalities.

The head of the tuberculosis program at the Rio Grande do Sul Health Secretariat, Werner Ott, has visited various states where the agreement is already in effect to assess the development of the work.

Next week, according to the assessment submitted yesterday to Ministers Waldir Arcoverde and Jair Soares, the two ministries should define the strategies for the treatment of tuberculosis in 1981.

Curitiba--The General Laboratory of the state of Parana is expected next week to announce the first results of the studies being made in order to find the causes of an acute infectious disease which caused the death of four members of the Taborde family in Campo Novo, municipality of Bocaiuva do Sul, 35 kilometers from Curitiba.

Health Secretariat doctors are optimistic about the prospects for the disease, since no probable cases have developed since the death of Reginaldo Simiao 4 days ago. The director general of the SEEB, Jair Pazzelo, believes that the disease "may be limited to the environment in which the Taborde family lived."

The last three victims of the disease, Lea Regina (3 years of age), Angelina Taborde (33) and Raimundo Simiao, are out of danger.

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TUBERCULOSIS INCIDENCE, FUNDING AND CONTROL OF PROGRAMS DISCUSSED

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 4 Dec 80 p 7

[Text] There are approximately 250,000 tubercular Brazilians and 35 million individuals infected with the Koch bacillus. Annually, about 120,000 new cases of the disease are discovered. Although the country is spending about 6 billion cruzeiros--more than half of the overall budget for the Ministry of Health for 1980--on tuberculosis programs and treatments, the health authorities themselves admit that "given the current conditions of life in Brazil, not even a superefficient policy could eliminate or control the disease."

The Sao Paulo State Health Workers Association will submit a report on the tuberculosis situation in the state today to Adib Jatene, secretary of health. The number of patients is estimated at 24,000, but only 18,000 are receiving treatment at our health centers. In the view of the association, one of the main difficulties in controlling the disease is the proliferation of state and private institutions involved in the problem and acting in different ways. The rate at which treatment is being abandoned is approaching 30 percent, and the rate of discharge comes to only 50 or 60 percent of the patients, although the expectation of cure which is perfectly possible with existing medications is about 90 percent.

The health secretariat has 800 health centers throughout the state, 200 of them in greater Sao Paulo. Of these, only 23 percent offer treatment for tuberculosis, although in 1976 a subprogram to combat the disease was launched, and in accordance with the plans of the health secretariat itself, it should have been under development in all 800 units by 1980. But the reality is that even the centers which have antituberculosis programs are operating on a precarious basis. For example, in that in Maua, in the greater ABC [Santo Andre, Sao Bernardo do Campo and Sao Caetano do Sul] industrial area, which should have 90 employees according to the plan, there are only 29 persons employed now, and not a single visiting health worker to find new cases and direct them to treatment.

The experts say that "the method of obtaining a decline in tuberculosis indices involves avoiding contagion, i.e., diagnosing and treating those who are ill." But only 46.6 percent of the 3,656 health units in the country are engaged in the treatment of tuberculosis. The Sao Paulo State Health Workers Association believes that 50 percent of the Brazilian population is infected with the Koch bacillus, while the Ministry of Health Pneumological Division estimated in 1970 that 40 percent of the Brazilian population was infected. The association argues that "in these 10 years, there has been no significant improvement in the socioeconomic conditions in which the people live nor in the health services to make a reversal of this trend possible."

Cost at Six Billion Small

Brazil spends about six billion cruzeiros annually on programs to control and treat tuberculosis. But the national secretary for special health programs, Franz Rulli, himself, admits that "with the current living conditions for Brazilian citizens, not even a superefficient policy could eradicate or even control the disease." Some 120,000 new cases of tuberculosis develop in the country every year and about 35 million individuals are infected. Only 65.6 percent of the 3,974 Brazilian municipalities are engaged in the diagnosis and control of the disease.

In the State of Sao Paulo, 20 percent of the health secretariat budget goes in expenditures to treat tuberculosis patients--about 18,000, including about 12,000 persons carrying the bacillus, i.e., eliminating it in phlegm and thus representing sources of infection. The secretariat has 800 health centers, 200 in greater Sao Paulo and 600 in the interior, and only 23 percent of the units in the capital are offering treatment for tuberculosis. With the agreement recently signed between the state health secretariat and the ministry of welfare and social security, new resources will be provided and the services should improve. In accordance with this agreement, the INAMPS (National Institute for Social Security Medical Assistance) will transfer all its responsibilities for tuberculosis to the Secretariat of Health, eliminating one of the main difficulties in the control and treatment of the disease--the proliferation of state and private institutions dealing with the problem.

Franz Rulli, national secretary for special health programs, reports that the six billion cruzeiros include the total expenditures for all agencies engaged in the prevention and treatment of tuberculosis. Annual expenditures on medications total 150 million cruzeiros, but with the shortened therapeutic system (six months) requiring more expensive drugs, this total may increase to 720 million cruzeiros. However this will in part be offset by the decrease in the number of patients hospitalized, in accordance with the current Ministry of Health policy of giving priority to outpatient treatment.

According to studies made by the Ministry of Health Pneumological Division, approximately a half of the six billion cruzeiros is spent by the health ministry itself, the state secretariats and other government bodies. Through agreements with the health secretariats, the INAMPS accounts for 850 million cruzeiros, included in the 3 billion. However, Renato Bataglia, the INAMPS director for the development and promotion of personal health, said that this amount was "drastically reduced as a function of the economic situation in the country."

In Sao Paulo, Gilberto Arantes, the advisor to secretary Adib Jatene for phthisic affairs, was appointed to coordinate the executive group planning the execution of the agreement signed with the Ministry of Welfare and Social Security. He stated that "85 to 90 percent of the tuberculosis cases in the state are being dealt with by the health secretariat, and the agreement will confirm a situation which already existed in fact." According to expert on phthisic problems Gilberto Arantes, the INAMPS medical aid stations provided treatment for approximately 3,500 tuberculosis patients in 1979 and hospitalized approximately 4,000, while the health secretariat centers cared for 18,000 tuberculosis patients.

Concerning hospitalization for tuberculosis in the state of Sao Paulo, Arantes said that the health secretariat has 1,280 beds available, and the hospitals with which

the INAMPS has contracts have 1,171. In his opinion, 1,000 beds would be sufficient for the state. He explained that "hospitalization for an average of two months is indicated for cases in which there are clinical involvements such as hemoptysis, respiratory insufficiency, weakened general condition or again in social cases--recent migrants, domestic servants and alcoholics."

The studies made by the Ministry of Health Pneumological Division indicate that 55 percent of the six billion cruzeiros spent by the country in the tuberculosis sector go for hospital treatment, "in the majority of cases at exorbitant and unnecessary cost." According to the director of the pneumological division, Germano Gerhardt, if these hospitalization costs were reduced, the financing for drugs could be increased, covering the increase resulting from the change in treatment systems (from one year to six months, with more effective drugs). Gerhardt added that "welfare patients--70 percent of the Brazilian population--are receiving social security benefits, with the present one-year treatment system, for an average period of 400 days." The use of shortened treatment systems, he concluded, will result in the payment of benefits for a shorter time and therefore a reduction in the social cost of the disease.

The agreement between the INAMPS and the state health secretariat in Sao Paulo will be developed in two stages, and 90 percent of the first, involving technical and administrative adaptation of the secretariat, is to be completed by the 31st of the month. The second stage of the agreement will involve the transfer of patients. The total implementation of the agreement should be a reality by 31 March 1981. The main concern of the executive group coordinated by Gilberto Arantes currently is familiarity with all of the treatment systems and the origins of the patients in order to establish priority areas in the capital, "since the majority of the health centers in the interior are treating tuberculosis."

Only 46.6 percent of the 5,656 health units existing in Brazil are treating tuberculosis. It is believed at the Ministry of Health that 86.7 percent of the population total has coverage. Six states have direct overall agreements with the INAMPS. They are Para, Piaui, Ceara, Espirito Santo, Rio Grande do Sul and the Federal District. Of the 65.6 percent of the Brazilian municipalities with tuberculosis control campaigns, 23.5 percent are found in these states. Sao Paulo was the seventh state to confirm the agreement, which the others are expected to do in accordance with a ministerial decision.

Even with the short-term treatment, which began to be used early this year, the Ministry of Health estimates that between 20 and 30 percent of the tuberculosis patients abandon treatment before it is completed. In all, it is estimated that there are 250,000 tubercular persons in Brazil.

Incidence in South Shows Decline

Brasilia--Tuberculosis can be detected by means of a simple sputum test; it can be cured by means of medicines; it can be identified by general clinicians who are not necessarily tuberculosis experts; and it does not require hospitalization of the patient. On the basis of such concepts, and under the full responsibility of the Secretariat of Health and Environment, Rio Grande do Sul achieved an 84 percent rate of cure for the tuberculosis cases reported in the state last year. Between 1971 and 1979, the incidence of the disease dropped by about 50 percent, the number of deaths declined from 1,232 to 543, and the mortality rate declined from 18.1 to 6.8 percent.

The head of the tuberculosis team at the Rio Grande do Sul health secretariat, Werner Paul Ott, believes that with the development of drugs for the treatment of the disease, it has since 1950 become "potentially controllable." However, Ott stresses that the distribution of medication free by the government and the subsequent simplification of the cure contributed greatly to this.

The activities undertaken in Rio Grande do Sul will result in the elimination of the disease in the stage in the medium range, according to the head of the tuberculosis team of the Secretariat of Health and Environment. He warned, however, that because of the characteristics of the disease, this state will last for several years, with a gradual decline in the incidence of cases prior to its disappearance. With this in view, the Rio Grande do Sul secretariat is developing programs in all 300 health units and 20 regional health offices in the 232 municipalities in the state.

In the view of Mr Ott, if the secretariat's procedure is not followed in other regions, it is because the health secretariats do not provide coverage for the entire state or, "as is the case in Sao Paulo, the tradition of hospitalizing patients is still deep rooted." In Rio Grande do Sul, on the contrary, there are only the Partenon Sanatorium in Porto Alegre, with 250 beds, and the Alegrete Sanatorium, with 20 beds.

According to the most recent data studied by the Secretariat of Health and Environment, there were 6,778 cases of tuberculosis in Rio Grande do Sul in 1979 as compared to 7,224 the preceding year, 7,436 in 1977, and 8,205 in 1976. The number of cases declined by about eight percent per year, but the secretariat estimates that 10 percent of the patients abandon treatment every year, whether cured or not.

Since 1971, deaths resulting from tuberculosis have been dropping in Rio Grande do Sul. In 1972, 1,160 tuberculosis patients, or 16.6 percent of the total, died. The following year the number of deaths was 1,033 (15 percent). In 1974, 922 persons (12.6 percent) died, the figure for 1975 was 815 (10.9 percent), that for 1976, 784 (10.3 percent), that for 1977, 667 (8.5 percent), and that for 1978, 543 deaths (6.8 percent of the patients).

Incidence of Tuberculosis in 1979

The expected incidence of positive cases in 1979 (average number of patients per 100,000 inhabitants) was as follows:

Brazil (total)	Northeast	North	Southeast	South	Center-West
66.5	89	110	67	44.5	44.5

Comment: In Espirito Santo, Amazonas, Para and Rio Grande do Sul, where the tuberculosis control program has developed in a way regarded as good, the number of estimated cases corresponded very closely with the cases reported.

5157

CSO: 5400

MALARIA IN RIO DE JANEIRO BROUGHT IN FROM OTHER STATES

Rio de Janeiro JORNAL DO BRASIL in Portuguese 5 Dec 80 p 5

[Text] Between January and October, 24 cases of malaria were reported in Rio de Janeiro, but all of the cases, except for that involving Elizabeth Maria Vianna, were "imported" from other states, such as Maranhao, where the problem still prevails, and even African countries such as Togo and Zaire. This information was provided by health worker Pelasio Parigot, bureau chief for the Superintendency for Public Health campaigns (SUCAM) in Rio.

He said that there is no possibility of an outbreak of the disease in Rio, because the only confirmed case of malaria was immediately treated, and health workers from the Ministry of Health are collecting blood samples from all the residents on Leonardo Vilas Boas Street and the neighboring ones, located near the Jacarepagua auto race course. A careful watch will be maintained for the next three months and mosquito control will be undertaken if new cases appear.

Old Problem

The occurrence of malaria in Rio is nothing new, and some years ago between 200 and 300 cases were reported brought in each year. With the reduction of the malaria area in Brazil in recent years, the number has dropped, and according to the SUCAM, the malaria statistics are valid because the patients are invariably hospitalized and reporting of the disease is compulsory.

Mr Pelasio Parigot denied that three cases of the disease had occurred in the city, as was reported. "We do not know about presumed cases in Barra da Tijuca and Leblon, and there is no record of them at any hospital or health station." The only case involved student Elizabeth Vianna, who went to the Status Clinic in Marechal Hermes, and then to the SUCAM Health Station at No 461 Honorio Street in Cachambi.

"This was a case in the third, benign phase, caused by the protozoa *Plasmodium vivax*, which invades the red corpuscles, destroying them and releasing toxins. The period of corpuscle destruction is that in which fever attacks occur."

No Secrecy

Mr Pelasio Parigot said there is no secret about the case as far as the SUCAM is concerned, and the visit paid by health agents was a routine measure. He said that health representatives take medicine to the home of the patient and verify personally

that it is taken. "Often patients take just the first dose of medicine (there are seven), and when they improve, they fail to take the others. They throw the medicine out. The problem is that in these cases the illness is not cured, but merely incubated."

As to the carrier mosquito, he said that it is practically universally present and impossible to eliminate, "for ecological reasons, among others." He did not think the proliferation of mosquitos in the Jacarepagua Lowlands was related to the intensive clearing in the region, and he said that there are many swamps and lagoons in the area where the mosquitos breed. When a number of cases of the disease are reported, the SUCAM undertakes a campaign against mosquitos in residences in order thus to prevent the spread of the disease.

Study in Jacarepagua

Brasilia--The temporary superintendent of the SUCAM, Mr Pedro Tauil, has announced that in order to establish whether a case of malaria reported in Rio developed there or was brought in from the endemic area in the Amazon region, the SUCAM is making an active survey in the Jacarepagua region in an effort to find other persons suffering from the disease. However, not a single new case has been found to date.

The epidemiological study will continue for three months, but it is known that student Elizabeth Maria Vianna visited places other than Rio, which makes identification of the probable site of infection difficult. According to Mr Pedro Tauil, the Anopheles mosquito, the malaria vector, has only been eliminated in Rio Grande do Sul, Brasilia and the Fernando de Noronha Territory.

Danger From Other Areas

The threat in the areas receiving newcomers is that someone infected with malaria, or chills and fever, as it is popularly known, who has been bitten by an Anopheles mosquito will arrive from the Amazon region where the disease is endemic, and a source of malaria will thus be introduced. This may well have occurred in the case of Elizabeth Vianna, according to the SUCAM.

The most recent entomological studies made in Rio by the SUCAM, in particular in the Jacarepagua area, show a low mosquito density, but even so, the body has ordered further studies in the region.

This year centers of malaria were eliminated in Minas Gerais, Pernambuco (100 cases) and Sergipe (about 60 cases). These areas, in which the outbreak was eliminated in only 15 days, run the risk that the disease may be reintroduced with the arrival of infected persons from the endemic region, because of the existence of the Anopheles mosquito in these states.

Mr. Pedro Tauil stated further that the reports to the effect that the SUCAM is not prepared for a new outbreak are in error.

"The SUCAM is properly prepared to spray all homes with insecticides to control malaria."

BRAZIL

BRIEFS

DIPHTHERIA IN CAMPINAS--Since the first case of diphtheria was reported in Campinas last Friday, a little boy of 3 has died and 3 other children have been admitted to the isolation ward at the Alvaro Ribeiro Hospital. Yesterday, a municipal holiday, regional health division technicians continued their search for the source of the disease, but they have already set aside the possibility of an epidemic, since all of the patients are related and were in frequent mutual contact in the past 2 weeks. The patient who died was Daniel de Paulo Ribeiro, who died of asphyxiation due to diphtheric blockage in the throat. The other children were infected by the mother of the little boy, Zilda de Paula Ribeiro. Although she had developed a natural immunity against the bacillus, she became a carrier, in this case, infecting her children and a niece. None of them had had the triple vaccine, supposedly compulsory, which guarantees protection against diphtheria, tetanus and whooping cough. The health study will continue among the neighbors and schoolmates of the infected children, but the technicians believe it is unlikely that there will be further reports of diphtheria within the region. The 10 telephone lines of the Regional Health Office (DRS-5) in Campinas have been disconnected by the TELESP. The penalty was implemented "because of continued nonpayment of the monthly bills due," according to an enterprise spokesman. The total debt owed exceeds 800,000 cruzeiros. The director of the body, Denir Zamariolli, refuses to discuss the matter, although currently involved in a vaccination campaign the results of which have been very poor. Only 2,500 children were vaccinated at the stations located in the 83 municipalities under the jurisdiction of the DRS-5, with a population of 3.8 million inhabitants. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 9 Dec 80 p 18] 5157

PRONAN APPROVAL PENDING--The draft of the Third National Food and Nutrition Program (PRONAN), to be launched in 1981, is awaiting approval of the basic guidelines by President Figueiredo, to whom the outline of the program will be submitted during his next meeting with Minister of Health Waldyr Arcoverde, within 10 days' time. As the Ministry of Health budget has not yet been approved, the technicians drafting the document are still unable to know what resources will be allocated to the Third PRONAN for the period 1981-1985. For the time being, the National Food and Nutrition Institute (INAN) is defining the target population for the Third PRONAN, and in conjunction with the EMBRATER [Brazilian Rural Extension and Technical Assistance Enterprise] and the Farm Supply Secretariat is establishing a specific policy for each basic producer for the rice, beans, milk and cassava required because of the decline in the available supply of each of these products per capita. "It is not possible to pursue a very broad program when the main foodstuffs are imported," technicians in the sector have observed. They say that

the conclusion of the project will depend above all on the incentives the government provides for production. One of the ideas is to extend the supply program being pursued in Recife as an alternative to dispensing products free to 10 more cities in the Northeast, as well as the establishment of dairy basins in the large urban centers, also beginning in the Northeast. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 7 Dec 80 p 36] 5157

TYPHOID FEVER IN ALAGOAS--Maceio--The number of persons hospitalized in this city for typhoid fever, which has already caused the death of 8 persons in the municipality of Maravilha, 270 kilometers from the capital, has increased by 6. The deputy governor of Alagoas, Theobaldo Barbosa, who is concerned about the situation, has asked the state health secretariat to dispatch vaccines and two more tank cars to supply the municipality with water, since because of the drought the population has been forced to drink water from the clay pits. Only 1,200 of the 11,000 inhabitants have been vaccinated by the health secretariat. Prefect Maria Jose Carvalho (PDS [Social Democratic Party]), who reported the outbreak to the deputy governor, said that the disease has been a greater problem than the drought faced by the municipality since the beginning of the year, one of the most severe in the past 10 years. The acting health secretary, Goncalo Doria, is following the development of the disease and the patients hospitalized in the capital (Tropical Disease Hospital). If an epidemic is declared, he will ask the Ministry of Health for aid. Prefect Maria Jose Carvalho blames the lack of treated water, forcing the population to consume water from the clay pits, for the appearance of four cases of typhoid fever and eight deaths in his municipality. [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 14 Dec 80 p 31] 5157

MEASLES STRIKES INDIANS--The National Indian Foundation (FUNAI) announced yesterday in Brasilia that an outbreak of measles among the Cintas-larga Indians, living in the Aripuana reserve in Rondonia, is under control. The illness struck 30 Indians, including children and adults, of whom 3 died. In a press release, the FUNAI announced that the sick Indians were transferred to a hospital in the city of Cacoal as soon as the measles epidemic was identified. According to the report, the rest of the tribe is being cared for by a mobile health team sent from Porto Velho. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 12 Dec 80 p 10] 5157

POLIO IN CAMPINAS--Three cases of poliomyelitis--two in Campinas and one in Jundiai--have been reported by the fifth regional health division of the state since the last mass national vaccination campaign against the disease in August. The director of the fifth division, Denir Zamariolli, regarding the index as "alarming," since these two neighboring cities contain together approximately a million inhabitants, announced a new mass vaccination campaign for the month of December in those cities, and also in Piracicaba, which receives a heavy flow of migrants. Simultaneously, the division plans to encourage the administration of Sabin vaccine in 80 municipalities in the Campinas region as well, as a booster for those children who did not take the third dose, and an opportunity for those who have not yet had any of the three doses for which the Ministry of Health program calls. The campaign for administering Sabin vaccine in Campinas, Jundiai and Piracicaba will begin on 2 December and will last for eight days. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 26 Nov 80 p 13] 5157

VACCINE PRODUCTION LIMITED--Recife--National production of vaccine against poliomyelitis has been greatly limited due to a lack of an adequate supply of monkeys for the work done in the laboratories, Minister of Health Waldir Arcoverde has announced. Concerning the immunization campaigns against diseases such as polio and measles, he said that a domestic bid was awarded for the purchase of all of the vaccines for the coming year: 90 million doses of vaccine against infantile paralysis, 45,000 for measles, and 35 [sic] of triple vaccine (against whooping cough, diphtheria and tetanus). He added that the Oswaldo Cruz Institute in Rio de Janeiro has been diluting and bottling measles vaccine, which cannot be done with the Sabin vaccine. "We want to develop doses against polio with the same methodology. However, there is a great limitation on the production of these vaccines in Brazil, having nothing to do with human resources or technology, but rather the shortage of monkeys. This vaccine is developed in the kidney of the African Cebus (Pithecia) monkey. We import these monkeys, but unfortunately reproduction has lagged." [Text] [Rio de Janeiro JORNAL DO BRASIL in Portuguese 22 Nov 80 p 8] 5157

CSO: 5400

BRIEFS

VACCINATIONS FOR WOMEN, CHILDREN—Mekela—Vaccination against six communicable diseases was given to 9,855 children and pregnant women here and in Maichew town of Tigray Region during the last six months, the General Manager of the Regional Health Office disclosed. In the vaccination campaign carried out in Makale from April to September, 1980 and in Maichew from May to October the same year, 4,496 children and 378 pregnant women and 1,763 children and 218 pregnant women were given vaccination in the two towns respectively. The campaign conducted in three rounds was against six diseases including diphtheria, measles, whooping cough, tuberculosis and polio. [Text] [Addis Ababa THE ETHIOPIAN HERALD in English 3 Dec 80 p 8]

CSO: 5400

BRIEFS

FOUR CHOLERA DEATHS REGISTERED--An out-break of cholera has hit Asiakwa near Kibi, claiming four lives within six days, it was disclosed yesterday. According to Mr S. O. Gyimah, technical officer-in-charge of the Medical Field Unit in Akim Abuakwa District, several victims have been admitted to the Akim-Tafo hospital following the out-break which was detected last Thursday. He said, so far, only one of the deceased, 80-year-old Madam Afua Nyantekyiwa, had been identified. He said a medical team headed by Mr S. Y. Osei, Eastern Regional Officer in charge of the Field Unit, had visited Asiakwa to attend to the sick and educate the people on personal hygiene--GNA. [Text] [Accra DAILY GRAPHIC in English 10 Dec 80 p 8]

CSO: 3400

ANTIMALARIAL DRIVE LAUNCHED IN MADRAS

Madras THE HINDU in English 26 Nov 80 p 1

[Text]

Yet another crackdown on malaria in the city has been launched by the Health authorities. This time, it is an intensive house to house spraying of Pyrethrum, a powerful insecticide, with specially acquired portable fogging machines.

Two malaria prone divisions in North Madras were taken up first for this intensive operation. According to an initial assessment, there was a significant reduction in the incidence of malaria in these areas following the spraying by a health squad.

Dr. R. L. N. Raj, Health Officer, told "The Hindu" on Tuesday that it was a great problem to tackle the malaria-causing Anopheles Stephensii which were found to breed conveniently in inaccessible places like walls, cisterns and overhead tanks.

The fogging squad with pyrethrum mixed in light diesel oil

moves into the houses a little before the fall of dusk when the mosquitoes are on their attacking spree. The operation is carried on till 8 p.m., covering as many houses as possible. "It takes anything like 25 days to cover one division," Dr. Raj said.

George Town, Park Town, Royapuram, Vyasarpadi, Chintadripet, Triplicane and Thousand Lights areas have been identified as vulnerable areas for malaria. These places account for over 75 per cent of the cases in the city.

Dr. Raj said the insecticide used would be just the minimum to kill the mosquitoes and the fog would not harm the people. However they had instructed the residents to keep the food and drinking water covered before the operation started.

Three sophisticated giant thermo-fogging sprayers, acquired last September, were put into use only for four months. This machine, mounted on trucks,

was taken round to fill the atmosphere with M-1000, another powerful insecticide, to kill mosquitoes.

The sprayers developed some trouble and they could be repaired only now. The State Health authorities, who had taken back the sprayers for repair, are still to hand them over to the Corporation.

A view is expressed that malaria-causing mosquitoes could be smothered down by simultaneously using the thermo-fogging of the environment and the intensive spraying indoors using the portable machines. The Corporation proposes to acquire 25 more portable sprayers.

When the situation was drawn to a sudden rise in mosquito nuisance in the city, Dr. Raj attributed this to the recent rains and said the anti-malaria operation now stopped up would also destroy other varieties of mosquitoes.

CSO: 5400

INDIA

BRIEFS

CHOLERA EPIDEMIC--New Delhi, 5 Dec--A cholera epidemic has claimed 52 lives in Saurashtra area of Gujarat State on the western coast during the past one month, reports reaching here Thursday said. The reports said there had also been incidence of gastro-enteritis. Nearly 4,000 people were afflicted still with the two diseases, health officials in the state administration were quoted as saying.--
NAB/AFP (Text) [Rangoon THE WORKING PEOPLE'S DAILY 6 Dec 80 p 5]

CSO: 5400

BRIEFS

DENGUE FEVER IN PALEMBANG--3314 volunteers summoned to fight dengue fever. From January to October, 471 victims and 35 deaths reported. Dr Sofyan Mukti MSc, head of the Palembang Municipality DKK (City Health Service) said on Monday, that the spreading of dengue fever in Palembang is quite serious. Since the beginning of the year to 17 September, there have been 342 cases reported and 27 of the patients have died. Then from September to 13 October there were 129 more victims and 8 deaths. The mayor of Palembang together with approximately 2,000 volunteers distributed 50 grams of abate to 120 households. Abate is the medicine (substance) used to destroy the mosquito larvae that causes the dengue fever. Dr Sofyan said that the DKK (Health Service) had its own spraying unit and one team to do the spraying. But he sees the dengue fever situation in Palembang as very serious and therefore the measures that have been carried out to now are no longer effective. Sofyan said that the Department of Health together with the Department of Agriculture, plan to spray the mosquitoes from the air in the near future. The volunteer team immediately placed the 50 grams of abate which was divided among the residents, in the places where they stored their water. The first case of dengue fever in Palembang was noted in 1975 and there was just one case. In 1976, there was an increase and in 1977-78 it dropped after the spraying of 20,000 hectares. Dengue fever rose again in 1979 with many more victims. [Text] [Jakarta KOMPAS in Indonesian 14 Oct 80 pp 1, 9]

CSO: 5400

IRAN

BRIEFS

SMALLPOX IN TEHRAN--Tehran press reports said tonight that a smallpox epidemic was widely spread in Tehran, Esfahan and Qom. Citing health sources, the reports said that several cases of typhoid and rabies were reported in Tehran and in other areas and towns. Iran's reports have recently indicated that several epidemics were widely spread in Tehran and in other Iranian areas and towns, particularly typhoid and cholera. [Excerpt] [JN212153 Baghdad Domestic Service in Arabic 2100 GMT 21 Dec 80]

CSO: 5400

CONJUNCTIVITIS REPORTED IN WEST COAST STATES, BORNEO

Disease Under Control

Kuala Lumpur NEW SUNDAY TIMES in English 16 Nov 80 p 5

[Excerpts]

IPOH, Sel. — The conjunctivitis situation in Perak remains unchanged with an average of 410 cases reported every day in the various hospitals in the past three days.

The Perak State Director of Health and Medical Services, Datuk Dr Gurmukh Singh, today said there were 410 cases on Wednesday, 448 cases

on Thursday and 379 cases yesterday reported by Perak hospitals.

In Kangar, 2,000 people were treated at the Kangar District Hospital in the last three-and-a-half months.

The Perak Director of Medical and Health Services, Dr Haji Ismail bin Mohamed Noor, said that from Nov. 1 to 8 alone, the hospital treated 708 patients.

conjunctivitis patients. This number of patients treated in October was 681.

He said the disease was now under control.

Incidence in Borneo

Kuala Belait BORNEO BULLETIN in English 22 Nov 80 pp 1, 32

KUCHING. — Medical authorities in East Malaysia have their fingers crossed that an epidemic of "red eyes" disease — conjunctivitis — which has hit many towns, might be coming to an end.

Cases reported from infected areas of Sarawak and Sabah generally showed a drop for the first fortnight of this month. There are thoughts the outbreak may have reached its peak last month.

In neighbouring Brunei, officials weren't so optimistic.

This week all public swimming pools were closed in Bandar Seri Begawan, where new cases of the disease are being reported at the rate of 25 a day.

The number of the disease became significant in June.

That month the Sarawak General Hospital in Kuching had 542, rising to 615 in July, 647 in August, 840 in September and 1,017 last month. But the heartening news is that the hospital had only 523 cases for the first two of November.

Bandar Seri Aman, Miri and Limbang are other places where latest statistics indicate a falling.

Bandar Seri Aman had 135 cases in September, 157 last month, but only 50 for the first fortnight of this month. Miri had 80 in August, 88 in September, 151 for October but only 61 for the November fortnight.

The month of Limbang was 71, 94, 114, 40.

In other towns the disease may have peaked earlier.

The government Law, King Howe Hospital in Sabah had 451 cases in July, 457 August, 594 September, but the figure dropped to 343 for last month and was further declining with 214 for the Nov fortnight.

Sabah was in a similar position — 108 August, 195 September, 90 October, 43 for the recent fortnight.

In Sabah, although no statistics are available, medical spokesmen said the trend also appeared to be downward, notably in Sandakan.

MARGOSA OIL IDENTIFIED AS CAUSE OF REYE SYNDROME

Kuala Lumpur NEW STRAITS TIMES in English 25 Nov 80 p 1

[Text] PETALING JAYA, Mon. — Margosa oil, known in Tamil as Vape ena and extensively used by other South-East Asian communities as a home cure for numerous minor ailments, can cause brain damage and death in children.

University Hospital Director Dr. Haji Abbas bin Haji Alias, who issued this warning today, advised parents not to consume the oil or administer it to children.

He said studies by two doctors at the hospital also identified the oil as an important cause of the Reye Syndrome which occurs largely among the Malaysian Indian community — a condition where there is acute onset of damage to the liver, the kidneys and the brain.

Since 1977, 18 children, mainly infants and all Indians, have been admitted to the hospital with symptoms of poisoning within two to four hours of consuming between 50 to 50 milligrams of the oil, which is derived from a medicinal plant *Andropogon indica* of the order Rutaceae.

The oil, a deep yellow in colour with an odour reminiscent of garlic, is also used in Malay and Thai herbal remedies, and is known as *Mengak Jalaran*, *M. Jambu* or *M. Jandu*.

The symptoms include intractable or persistent convulsions or fits, drowsiness and respiratory difficulty.

"Despite intensive care, two of the children have died and one is left with permanent brain damage," he said.

Acting head of the hospital's Paediatric Unit,

Associate Prof. Daven-drasingam Sinniah, who conducted studies on the oil with Dr. G. Baskaran of the Medical Faculty's Veterinary Department said that if not for the very intensive care, the other cases admitted would also have died.

Prof. Sinniah said in one case, an infant had been administered margosa oil from a few days after birth.

"External use of the oil is all right, but consuming it is highly dangerous," he added.

Drs. Sinniah and Baskaran studied the effects of the oil on mice and found it to be toxic, producing identical symptoms.

Samples of the oil from different retailers were found to have toxic effects on the liver, kidney and brain.

From the studies on mice and biopsies on children, the two doctors believe that ingestion of the oil is a cause of Reye Syndrome, a disease identified relatively recently and the cause of which has not yet been established.

Prof. Sinniah said that although cases had only been recognised at the University Hospital, they believed that this was only "the tip of the iceberg".

"We believe that many cases are being missed and mistaken for other diseases, not only in Malaysia but in other countries including India, Sri Lanka and Indonesia, where the oil is also used," he said.

MOZAMBIQUE

BRIEFS

CHOLERA OUTBREAK--Jorge Cabral, national director of Preventive Medicine, has told the Mozambican news agency AIM that the cholera outbreak in a children's clinic in Maputo Central Hospital has been brought under control. He said that 68 cholera cases had been detected. He also said that another 10 cases had been detected in a number of Maputo residential areas. There have been a few cases of cholera in Nampula Province, northern Mozambique, particularly in Memba and Erati Districts. Preventive measures to eliminate the disease are under way. (LD280406 Maputo Domestic Service in Portuguese 1900 GMT 27 Dec 80)

CSO: 5400

GOVERNMENT ACTION SOUGHT TO AVERT RUBELLA EPIDEMIC

Christchurch Demand

Christchurch THE PRESS in English 21 Nov 80 p 1

[Text]

Health reporter

Parents of deaf children in Christchurch are demanding urgent Health Department action to avert another serious epidemic of rubella (German measles) like the one that caused 300 cases of deafness in young children in 1964-65.

Congenital rubella can cause brain damage, heart deformities, and hearing and vision loss in babies. It arises from the mother contracting rubella during pregnancy.

Four suspected cases have been reported in babies aged under one year in Christchurch in the last six weeks.

Representatives of the Federation for Deaf Children said yesterday that they were "outraged" at the way in which the

Health Department was approaching what the parents feared was the start of another rubella epidemic.

A federation spokeswoman Mrs Marie Gunn said that the department seemed thoroughly confused about how to handle what many of its officers suggested privately was a "health time-bomb".

"We have been told by people in the head office that it is up to parents' groups to do something, as departmental officers' hands are tied. We are determined to ensure that the problems we have had to face as result of the last epidemic are avoided. Sadly it will be far too late for many," Mrs Gunn said.

The department had adopted a half-hearted and belated stand on immunis-

ing against rubella, Mrs Gunn said.

"There is no programme to screen young children to see if they are affected. So often detection is left too long. The lack of a consistent programme of public education on rubella has meant that thousands of unborn children are at risk," she said.

The principal of Van Aach College (formerly the School for the Deaf) at Sumner, Mr Sefton Ilett, said he shared the federation's concern.

"We know from some medical people in Christchurch that the incidence of rubella is increasing," he said.

"The Health Department has no unified medical service which automatically screens all pre-school children at an early age. Early detection leads to a

greater chance of normal rehabilitation for an affected child," Mr Bartlett said.

The Acting Minister of Health (Mr Adams-Schneider) said last evening that he had been in touch with federation representatives in Auckland.

The epidemiology advisory committee of the Board of Health will meet on November 27 and is considering rubella. The federation has been asked to make written statements to the committee which will fully consider them," Mr Adams-Schneider said.

"Dr Campbell Begg, director of the department's Health Promotion Division, has agreed to meet federation representatives before the November 27 meeting to discuss the issue."

Outbreak in Auckland

Wellington THE EVENING POST in English 3 Dec 80 p 25

[Text]

AUCKLAND, Dec 2, (PA). — Auckland has been hit by an outbreak of congenital rubella (German measles).

Health Department officials said the result could be the birth of an increased number of handicapped children in mid-year although most cases reported by Auckland doctors recently have occurred in primary school children, almost inevitably some of those youngsters would come into contact with pregnant women who are not immune or vaccinated.

The last major epidemic of rubella in New Zealand in 1964 left hundreds of children with hearing, sight and heart defects, or intellectually handicapped.

The director of the health promotion division, Dr Richard Campbell Begg, said there would be surveillance of all babies born next year whose mothers may have caught rubella.

"We are drawing the attention of doctors, hospitals and health workers to the need to check newborn babies for congenital defects."

Dr Campbell Begg said an upsurge in rubella had been noticed throughout the country, but it was not known how many pregnant women had been affected.

He emphasised the importance of any women likely to become pregnant over the next 12 months having a blood test to see if immunisation was necessary.

Any pregnant woman who believed she had been in contact with the disease should see her doctor immediately, he said.

BRIEFS

MEASLES, SMALLPOX VACCINATIONS--A total of 21,841 infants between the ages of two years and three months, were vaccinated against polio, measles, small pox and other common paediatric diseases during the first phase of the expanded immunisation programme which ended recently in the Tudun-Wada Local Government area, Kano State. Similarly, 7,586 mothers were also vaccinated against tetanus during the immunisation exercise. These facts were contained in a release issued recently and signed by the Head of Medical and Health Department of the Tudun-Wada Local Government area of Kano State, Alhaji Alfa Sidi Gumel. The release stated that during a similar exercise earlier this year in the area, about 5,186 people were vaccinated against Cerebro-Spinal-Meningitis (CSM) and cholera at Burum Burum village, while a total of 14,105 children between the ages of five and six months were immunised against measles in the area. According to the release, efforts are being intensified by the local government area to eradicate infectious diseases in the area and advised the people of the area to report any outbreak of disease so that prompt action could be taken to contain it. The release also advised the people of the area to maintain high standard of personal hygiene. The release, however, indicated that a total of 4,614 births and 972 deaths were recorded in the area between January and October this year. [Text] [Kaduna NEW NIGERIAN in English 16 Dec 80 p 7]

LEPROSY CONTROL--The Federal Government is now set to control leprosy in the country in order to eradicate it. To this end, the report submitted by the National Leprosy Control Committee, set up by the government, had been taken into consideration in making proposal for the fourth National Development Plan Period (1981-85). The Minister for Health, Mr. D.C. Ugwu, who made this known in a message to mark the Leprosy Week in the Bendel State capital, Benin, added that the programme would also co-ordinate all efforts being made in the country to control and eradicate the disease. He blamed the non-functioning of some leprosia in the country on lack of funds and qualified staff and announced that support would be given to both the Leprosy Research Unit at Uzuakoli and the Leprosy Research Centre, Zaria, in their efforts to eradicate the disease. The Minister commended the Bendel State wing of the Leprosy Control and Relief Association (LECRA) for its dedication to the eradication of the disease and rehabilitation of the patients. [Text] [Enugu DAILY STAR in English 16 Dec 80 p 3]

TOTAL CHOLERA CASES NOW 642

Johannesburg THE CITIZEN in English 11 Dec 80 p 2

[Article by Marilyn Cohen]

[Text] ANOTHER 15 cases of cholera were confirmed yesterday, bringing the total number of people affected by the disease to 642.

Four of the cases had been reported in Lebowa and 11 in the Eastern Transvaal lowveld near the Kaap River — the area which has "been giving most of the problems since the beginning of the outbreak," Dr J Gilliland, Deputy Director-General of Health said.

Thousands of people are expected to flood into the affected areas to visit their families over the Christmas holidays and Dr Gilliland said every precaution was being taken to ensure they would know how to cope with the disease.

"Our anti-cholera campaign is getting the full support of all the Black radio stations; we've sent people to talk to teachers and pupils at the Black schools; and literature on the disease is being distributed at petrol stations along the routes into the particular areas."

The Department of Health was "doing everything in its power" to find and correct

contaminated water supplies," he said.

There have been no more reported cases of cholera from the Witwatersrand after confirmation of the disease in a Soweto man earlier in the week.

CSO: 5400

BRIEFS

CHOLERA OUTBREAK--Lushoto--Eight people have died of cholera and 14 others have been admitted to the (Malola) Division Hospital in Lushoto District following a fresh outbreak of the disease in the district. The district anti-cholera committee said the situation is reported to be critical in (Msando), (Unya) and (Magasai) villages. The committee said the situation has worsened because of heavy rains which bogged down medical personnel from Lushoto to reach the affected villages. It said so far the disease had claimed 12 lives since its reoccurrence in the district at the end of last month. [Text] [LD260256 Dar es Salaam Radio in English to East Africa 0400 GMT 24 Dec 80 EA]

CSO: 5400

BRIEFS

CHOLERA VACCINE SHORTAGE--Bulawayo--United Bulawayo hospitals have had one delivery of cholera vaccine in the last 10 days but by Wednesday this week it had all been used, a spokesman said yesterday. The batch of vaccine that arrived last week was enough for about 360 doses but there was high demand from people planning Christmas holidays outside the country, particularly in South Africa where more than 600 cases of the disease have been reported since the start of the current outbreak there. Vaccination against cholera is not mandatory for entry into South Africa and is not required for entry into Zimbabwe. People travelling from South Africa to Zambia would, however, require a current vaccination certificate for entry into that country, the spokesman said. [Text] [Salisbury THE HERALD in English 20 Dec 80 p 11]

CS0: 5400

HOG CHOLERA CONTROL PROGRAM INSTITUTED

Brasilia CORREIO BRAZILIENSE in Portuguese 26 Nov 80 p 6

[Text] President Joao Figueiredo signed a decree establishing the Program to Combat Hog Cholera yesterday. The plan will be executed throughout the national territory by the National Agricultural Protection Secretariat at the Ministry of Agriculture. The project calls for the mobilization of resources and the establishment of policy norms for research on and the battle against this disease, in accordance with the priorities identified in the selection of areas with greatest importance in hog breeding.

The program, which will require federal resources of about 453,248,000 cruzeiros for its execution, will be implemented by means of coordination between the Ministry of Agriculture and federal, state and municipal bodies involved with the problem, as well as production cooperatives and other private bodies. The functions of supervision and normative guidance will be carried out by an advisory council headed by the National Agricultural Section secretary, and including the directors of the supply, animal production, animal health protection and animal product inspection secretariats, as well as the National Animal Reference Laboratory and the national coordination office of the PCPS [Program to Combat Hog Cholera].

The advisory council will have, on the central level, the technical and administrative support of a national coordinating office of the PCPS, which will, in addition to organizational functions, have the duty of following and assessing the activities carried out. The establishment and development of the program on the state level will be effected by regional coordination offices under the jurisdiction of the national office.

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CSO: 5400

BRAZIL

FUNDS ALLOCATED FOR HOG CHOLERA CONTROL PROGRAM

Brasilia CORREIO BRAZILIENSE in Portuguese 9 Dec 80 p 5

[Text] The Ministry of Agriculture, through the National Crop and Livestock Defense Secretariat, will spend 85 million cruzeiros on the campaign to control hog cholera in the states in the southern part of the country, both its classic form and African swine fever, and to eradicate the latter disease in a maximum of 3 years. Agricultural technicians expressed certainty that with these measures, domestic producers can again compete on the domestic and foreign market with products of "known quality."

The allocation of 85 million cruzeiros is to be made available beginning in January of next year, and the program will be developed in gradual and progressive form, initially covering the sectors in the country where hog breeding is best developed technically. Thus the program will begin in the southern region, with an allocation of 6.25 million cruzeiros for Parana and 10.7 million each for Rio Grande do Sul and Santa Catarina.

Production

Brazilian hog breeding shows a profitability rate of 56 percent on a national average. Thanks to more rational breeding methods in the states in the South, Parana has a 71 percent rate, with 81 percent for Rio Grande do Sul. The state of Santa Catarina has an average rate of 83 percent, with a rate of 130 percent found in the industrial hog-breeding regions in the western part of the state.

According to technicians at the ministry, the campaign to control hog cholera meets the need for the immediate introduction of a systematized plan, dealing simultaneously with the two forms of the disease, wherein sanitary measures apply without differentiation to both forms, except for the possibility of using vaccine for the immunization of animals against the virus which causes classic hog cholera.

The program, calling for the direct expenditure of 57.25 million cruzeiros through the National Crop and Livestock Defense Secretariat (SNAD/DFAS), and an indirect expenditure of 27.75 million through agreements, is further designed to prevent and reduce the incidence of the disease in the area and guarantee the Brazilian hog breeder increased hog production and productivity.

Strategy

Within the framework of the strategic actions in controlling hog cholera, the Ministry of Agriculture expects that constant health supervision will be exercised at the ports, airports and frontier posts with a view to preventing the entry of live hogs or hog products coming from areas where the disease exists; systematic vaccination against classic hog cholera at the expense of the hog breeder, and subsequent official control and identification; establishment and elimination of centers through properly trained and equipped field units, consistent with the provisions of the procedural norms for controlling hog cholera.

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CSO: 5400

VACCINATIONS FOR ANIMAL DISEASES

Gondar Program

Addis Ababa THE ETHIOPIAN HERALD in English 5 Dec 80 p 6

[Text] Vaccination against various animal diseases will be given to 1,239,667 head of cattle in Gondar Region during the third round economic development and cultural campaign, according to the Regional Animal and Fishery Resources Development Office. Comrade Misgina Ezaz, acting chief of the Regional Animal and Fishery Resources Development Office, disclosed that during the second round of the campaign the office has hit 75.7 percent of its target. He said that during the last campaign year 640 selected sheep, poultry and head of cattle and 40 beehives have been distributed to service and producers' cooperatives. He added that the office will distribute 1,058 selected sheep, hens and head of cattle and 44 beehives this year.

Assayita Program

Addis Ababa THE ETHIOPIAN HERALD in English 2 Dec 80 p 8

[Text] The North-eastern Ethiopia Livestock Development Project is reported to have vaccinated a total of 30,506 cattle and pack animals against various animal diseases in Mille District of Awassa Province, Wollo Region. The vaccination was carried out through a 3-month long campaign from July to September 1980.

CSO: 3400

VACCINATIONS OF CATTLE FOR RINDERPEST REPORTED

Kano State

Kaduna NEW NIGERIAN in English 4 Dec 80 p 9

[Article by James Akande]

[Text]

ABOUT 92,571 head of cattle were vaccinated against rinderpest and similar cattle diseases in Turkan-Wa-da Local Government area of Kano State, between April and September this year.

The Kano State Ministry of Home Affairs and Information bulletin, stated that similarly, about 2,711 birds were also vaccinated against various diseases in four of the veterinary clinics in the area during the same period.

The bulletin quoted the Head of the Department of Agriculture and Natural Resources in the area, Alhaji Musa Mohammed, as saying

that the local government had purchased drugs and equipment worth 14,000 Naira for the vaccination exercise.

According to the bulletin, Alhaji Musa Mohammed disclosed that the vaccination exercise was still in progress and that sheep, goats, horses, cats and dogs would also benefit from the programme.

The bulletin further stated that the Head of the Department commended the state government for abolishing community and jugal taxes and observed that it had helped to enlist the co-operation of the Fulani herdsmen, for the smooth implementation of the programme.

Sokoto State

Kaduna NEW NIGERIAN in English 6 Dec 80 p 7

[Article by Ibrahim N. Salihu]

[Text]

ABOUT 80,000 out of 1,000,000 head of cattle have so far been vaccinated by the Veterinary Division of the Sokoto State Ministry of Agriculture since the outbreak of rinderpest in the state last September.

A release signed by the Commissioner for Agriculture, Alhaji Isa Kargwa, the Mafawaikin Argwaga, said this is in spite of the necessary

sanitary measures adopted to bring the disease under control.

He outlined the measures which include checking of all cattle movements with particular attention to trade cattle.

The commissioner also reported that there are now 80 permanent and 120 temporary vaccination centres operating in the state, in addition to the strict quarantine measures

adopted for affected cattle.

Alhaji Isa Kargwa said while provision of vaccines and vaccination facilities to vaccination camps has not been resumed, cattle Fulani have also been enlightened on the dangers of not restricting the movement of their cattle. The Fulani have also been told to present their herds for vaccination and collect certificates for them.

CAMPAIGN AGAINST TSETSE FLY DESCRIBED

Salisbury THE HERALD in English 15 Dec 80 p 6

[Text]

ABOUT one-fifth of Zimbabwe was now infested by tsetse flies because operations against them were interrupted during the war, the chief glaciologist with the tsetse and trypanosomiasis control of the Ministry of Agriculture, Mr Gervy Davison, has said.

"Before the war our fight against tsetse flies was proving successful and we had got complete control of the situation in the south-east corner of the country," he said.

"We had even got as far as 80 km into Mozambique a few years ago but now a tsetse infested area has developed in the south-east between Mt. Selinda and the Save River to the south."

In the north the game parks had been the areas that had tsetse flies, but since the interruption of control operations the line marking tsetse infested areas had moved south.

In parts of the north-east the flies were prevalent and they had caused large losses of cattle in the TTLA.

"There are also pockets along the north where cases of infected cattle have been reported by our inspectors when they visited the TTLA during dipping sessions.

"We are not sure whether these areas are actually infested. An explanation for the detection of such cases could be the payment of lobola debts.

"Cattle which are used for paying lobola may have come from tsetse infested areas. We have sent some of our teams to look into the reported cases and the inspectors visit the areas every month.

"Their visits will help to dispel or confirm the presence of tsetse flies in these areas south of present tsetse boundary," said Mr Davison.

Teams will be sent into the area into the south-east to start work against the flies later this month. The south-east is an important area because this is the heart of the beef industry.

Although the tsetse control branch in the Ministry of Agriculture has found a cure for infected animals it does not prevent further attacks.

Once an animal is treated the carcass is downgraded by the Cold Storage Commission.

Mr Davison said he was impressed by recent talks between the Government and neighbouring countries on how to exterminate tsetse flies.

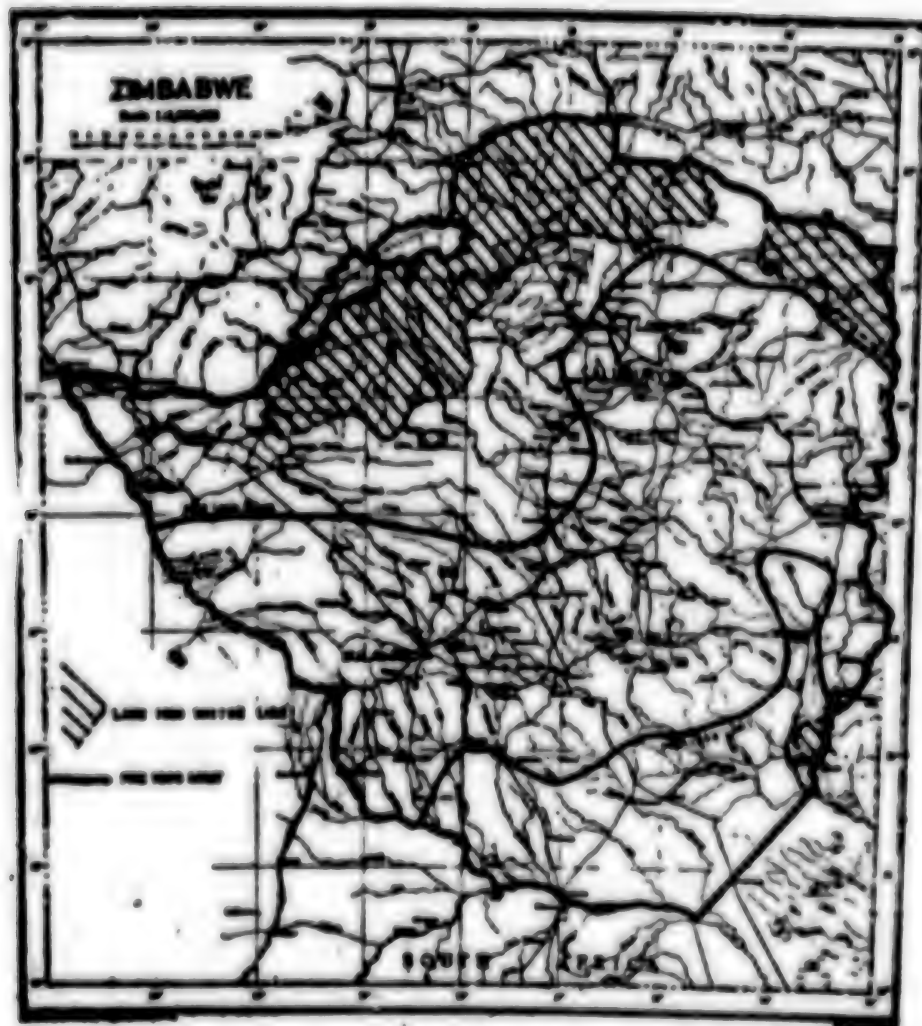
But he said it would be several years' work before they could go into Mozambique and Zambia.

Most of the tsetse areas in Zimbabwe were largely in the game reserves. But the immediate task was to see the line marking tsetse infested areas taken back to where it was before the war.

Decisions must also be made about the effectiveness of the two methods being used to exterminate tsetse fly in Zimbabwe.

Shooting of the host animals and spraying are the two methods now being used.

The shooting of the host animals — elephant, bush pig, warthog and



water buffalo — means the depletion of the game in the national parks along Lake Kariba.

And the use of sprays has its own limitations in that it kills only adult flies and not the pupae. Sprays are also washed away when the rains come.

Mr Davison said the drive to exterminate the flies in the south-east was of more concern to Zimbabwe than to Mozambique. The Mozambicans kept their cattle much farther from the flies but they were also hampered by lack of resources and know-how.

The Zimbabweans suffered from a shortage of funds to combat tsetse fly, but their beef industry was not as developed as Zimbabwe. There was a

potential threat of flies from this country crossing from Urungwe into Zambia.

Mr Davison was optimistic that if a system his department was working on now proved successful it could have the situation under control in two years.

The system is being researched and involves the use of a trap. The trap is erected on a rectangular frame about 1.5 metres high and is covered by a white and black cloth with a rotating drum at the top.

The trap is baited with an ox-like odour. At the moment they are using acetone, but research is still continuing to find a perfect "ox-odour".

The odour attracts the tsetse flies which enter

the trap and are guided towards the rotating drum by a funnel-shaped gauge. Once in the drum they are sprayed with a steriliser or are killed.

The method will be put into effect in April when about 100 traps will be set up on Antelope Island on Lake Kariba.

The idea is to sterilise the flies and free them in an infested area to mate with the female flies. Female flies die after they have deposited the pupae.

"If we can catch about 1 percent of flies in six months the tsetse population can be wiped out in a shorter time, perhaps in about two years. But we still have to perfect the method," said Mr Davison.

BRIEFS

MONGOOSE RABIES EXPERIMENT--Mongoose are shunning the baited springtraps set for them in the Bulawayo area by a Salisbury veterinary researcher, Mr Basil Petzer. The traps are baited with raw chicken and eggs but mongooses are viewing the fare with disdain. "There are probably too many beetles and other forms of food in the veld that mongooses prefer," Dr Chris Foggie, head of rabies research at the Government veterinary laboratory in Salisbury, said yesterday. Mr Petzer came to Bulawayo a fortnight ago, and will stay until Christmas on a rabies study. He hopes to trap about 100 mongooses. Mr Petzer said he had seen plenty running around in parklands, gardens and on the commonage, and he had set traps in several areas where rabies cases have occurred. He appealed to motorists who run over mongooses to take them to the veterinary department offices. He needs to establish whether mongoose rabies is caused by a virus different to, and less dangerous than, that which causes dog rabies. [Text] (Salisbury THE HERALD in English 11 Dec 80 p 11)

CSO: 3400

SABOTAGE OF COFFEE FARMS BY PLANE CONFIRMED

PA302240 Guatemala City Radio Mundial in Spanish 1420 GMT 30 Dec 80

[Distributed by Inter-Central American Radio Organization]

[Text] The agriculture minister confirmed during a news conference yesterday the news disclosed on Sunday regarding the sabotage of the coffee plantations along the southern coastline by a light plane which spread rust-infested leaves over Suchitepequez Department. Minister Edgar Ponciano, along with Maj Rolando Archila Marroquin, deputy public relations secretary at the Presidency, explained how, when and where a foreign light plane probably overflowed the coffee area and dropped the rust-infected leaves.

Minister Ponciano said the situation is very serious because the area is rich in coffee and the disease can spread. He said the worst thing is that there are more small producers in the area but they are right next to big producers. Ponciano added that this is stupid harassment of our country intended to upset our economy.

He said that it is a well-known fact that coffee is 25 percent of Guatemala's economy and that no fewer than 1 million Guatemalans earn a living from it. He said this is germ warfare which is illegal and banned by the Geneva Convention.

The government, through the army, will take strong action against any airplane or vehicle which tries to do what occurred on 24 December when the rust-infected leaves were dropped from the air. The Inter-Central American Radio Organization inquired in Guatemala whether this means that the air force will down any light plane suspected of conducting such an operation.

Archila Marroquin admitted that that is possible. He said Guatemala is entitled to take any action against unidentified planes overflying our territory.

CSO: 5400

KHAPRA BEETLE INFESTATION FOUND IN SHIP AT AUCKLAND

Auckland THE NEW ZEALAND HERALD in English 3 Dec 80 p 16

[Text]

One of the world's worst pests, a pinhead-sized beetle larva, has been found in a ship at Auckland.

Port agriculture officers at Auckland were warned by their Australian counterparts that an infestation of the khapra beetle had been found in the freighter Nedlloyd Fremantle. The ship was fumigated when she berthed at Auckland a few days ago.

Auckland's regional port agriculture officer, Mr Travis Flint, said the beetle was found in the ship's stores.

It is the most serious

world pest as far as stored food is concerned and has a voracious appetite for rice, lentils, wheat and barley.

It also has an ability to live a year or more without food or water.

Mr Flint said it was the worst infestation of the beetle discovered in New Zealand. Four other cases have been reported over the years.

The Nedlloyd Fremantle was evacuated during the fumigation but was cleared for work yesterday.

NEW WHEAT DISEASE PRESUMABLY ORIGINATED IN AUSTRALIA

Christchurch THE PRESS in English 4 Dec 80 p 26

[Text]

A new disease of wheat has appeared in New Zealand; it is stripe or yellow rust. Its presence in a crop near Gore was reported to a meeting of the Wheat Research Committee by Dr H. C. Smith, the director of the Crop Research Division of the Department of Scientific and Industrial Research.

Later, Dr J. Hedley, officer-in-charge of the Ministry of Agriculture's plant health diagnostic station at Lincoln, said that the Ministry suggested that farmers should keep an eye open for the disease and if they suspect its presence send specimens of the plant material to their local office of the Ministry.

It is assumed that the spores of the rust have been blown across the Tasman from Australia, where it was found in Victoria in October last year. Dr Smith said that it had been expected in New Zealand after its discovery there.

The rust is caused by a fungus, *Puccinia striiformis*, and appears as orange yellow pustules or more characteristically as stripes on the older leaves of the wheat plant. The stems and ears can also be affected.

Cool, wet weather

favours production of the spores and infection and under these conditions the disease can become epidemic.

The disease is widespread in the wheat growing world and in Britain is regarded as the most serious of the rusts affecting wheat. Under severe epidemic conditions yield losses there in individual crops can be as high as 50 per cent, but over the country as a whole in an epidemic year the average loss is from 5 to 20 per cent.

The chance of containing the disease is not good but it can be controlled effectively chemically as long as the chemical is applied when the first signs of it appear. Under high infestation pressure a further application has to be made within three or four weeks.

A chemical called triadimefon, commonly used against the rust overseas, is available in New Zealand but is not registered at present for use against this particular rust, according to Dr Hedley.

In the longer term the growing of varieties resistant to the disease is a method of combating it and Dr Smith said that a member of the staff of the Crop Research Division, Mr W. B. Griffin, who is at present overseas studying for a doctorate, had

helped an Australian wheat breeder to test Australian and New Zealand wheats in England for resistance to stripe rust.

Dr Smith said that a fairly large number of New Zealand varieties had quite a good degree of resistance to the disease.

The one with the best is Karamu but this variety is not highly regarded for producing milling wheat for baking. Takahe, now most favoured for growing in Southland, and Tiritea, highly favoured for growing there after it has been released for commercial use, are the most susceptible.

The disease was first noticed near Gore in autumn-sown Tiritea.

Unless the disease can be controlled growers in the south might have to turn to more resistant types, Dr Smith said.

However, he noted that varieties with the most resistance often showed the least permanence, in that their resistance could break down.

The variety Kopara, now widely grown in New Zealand, is resistant to stripe rust, but the new varieties, Rongotea and Oroua, are moderately susceptible. Dr Smith said, however, those varieties in the latter category should have a reasonable level of tolerance except in a very wet season.

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